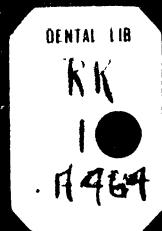
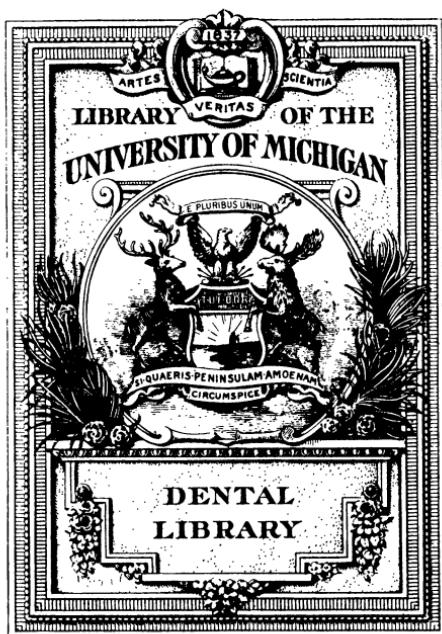


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Saint Louis**

OUR POST GRADUATE COURSE

OPERATIVE DENTISTRY.

BY R. B. TULLER, D. D. S.

FURTHER DISCUSSION OF THE INLAY PROPOSITION.

There are probably being made today by dental practitioners more inlays than ever before, and the subject, therefore, though so frequently discussed in these pages, is a live one, and not altogether exhausted.

Cast gold inlays no doubt take the lead. One reason for this is that this method opened the way to a large number of operators who before this era did not attempt inlay work at all, owing to the difficulties, to them, attending their construction.

Again, some who had undertaken inlay work and had not met with the success desired by the older methods saw in the casting method more certainty of accomplishing the desired end—a durable and perfect-fitting piece of work.

Unquestionably many operators failed to make porcelain inlays that stood the test of time and masticatory endurance. When the inlays were perfect in appearance the cement failed to do its duty. One trouble has been that porcelain inlays have too often been placed when the conditions were not consistent for such work, and the failure was simply due to lack of good judgment. Mainly, perhaps, failures occur because a proper seating of the inlay was not made, or could not be made. All kinds of fillings, of whatever material, or placed by whatever method, frequently fail for the same reason—lack of proper calculation and performance in cavity preparation. The built-in filling, of course, depends upon some sort of under cuts or retentive shape, while the inlay must be made so that the model or matrix fitted to the form of the cavity may be readily withdrawn without distortion of the shape. This, however, does not preclude a shaping of the cavity so as to gain some advantage of cavity hold and retention, even when porcelain is used.

When gold is used, especially cast gold, the matter of cavity-hold may be, and should be, well provided for. Various extensions or projections can be made in using cast gold that could not be made for porcelain, and would be of no value if they could be, since the porcelain is frail except where bulk gives it strength. In fact, any filling dependent on a matrix can not very well be adopted to any cavity that is at all intricate in shape.

Faulty manipulation in whatever method may be employed to fill a tooth is responsible for a very large proportion of failures, and more especially inlay methods. This, together with faulty judgment in making a proper seating for the filling, is the cause of many of the troubles that come home to the dentist.

Some operators succeed in making a beautiful and perfect fitting inlay, and yet for lack of a proper seating it is pushed out of place in the very act of setting. For instance, a cavity made in proximo-occlusal surface of a tooth with its floor or cervical wall sloping outwardly invariably has a tendency to push out at the cervix when setting, and again has a tendency to do the same when occlusal strain comes upon it. The square base at least, or one inclining inward preferably, or with a seating groove cut along that floor, should be the invariable rule in preparing for an inlay as well as for any other filling. Every base for such a filling should be flat mesio-lingually at least, instead of curved, as they usually are without some effort to square them. That does not mean that the corners must be sharp. It means that a generally flat base is better than a rounded or curved one. The sharp angles at the corners, or at least sharp inner angles are more important for gold foil fillings than for inlays in that they serve to hold in place the gold that is first introduced. A groove cut mesio-lingually across the cervical floor, or a couple of shallow pits are consistent for an inlay where it would not be, as a rule, for a malletted-in gold filling. Such groove or pits supply a guide for the proper seating of an inlay. With such a seating at the base and short retention grooves or notches in the occlusal border in some cases, or an extension of a prong in cast gold inlay made to hook in occlusally, act as retainers to resist the tendency of occlusal stress forcing the inlay out in a proximal direction. Inlays so anchored rarely come out.

Nothing will preserve a tooth and prevent recurrence of decay better than a good cement filling, if it can be protected from abra-

sion and the chemical action of the fluids of the mouth. This protection is afforded almost perfectly by a properly made and perfect-fitting inlay. Even poorly made inlays protect as long as they stay, and when they have to be replaced the cavity does not have to be excavated farther on account of recurrent decay, as is the case almost invariably with imperfect fillings. With attention paid to getting proper seating, an all the cavity-hold or retention that can be secured consistent with an inlay filling, which is ample, usually, with cast gold, such fillings in all time to come, probably, will stand among the best, if not the best, in the dental category; unless, perchance, there may yet be discovered a plastic material that will fill all the requisites of an ideal filling, which, of course, includes permanency.

Now, the retention of cast gold inlays is greatly enhanced by properly hollowing them out from the cavity surface, or rather hollowing out or honeycombing the wax model. This is safely and easily done by the use of the suction carver, an instrument something on the order of a syringe, with a means for heating the point and keeping it so, but which works the reverse of a syringe by exhausting the air causing a suction that draws in the melted wax, depositing it in a chamber filled loosely with cotton. With such an instrument it is possible to hollow out an inlay to a mere shell, or honeycomb it without destroying its fit or its proper seating. It not only improves the hold of the cement which fills the interior, but it reduces the conductivity accordingly, and, furthermore, reduces the quantity of gold materially. This does not mean that it cheapens the value of the inlay, but, on the contrary, it enhances it. The inlay as an inlay is worth more, and it takes some time and skill to produce it. A better fee should be gained than without it, while the outlay in precious metal is greatly reduced. The only suction carver on the market that I am aware of is the Roach, named after the inventor of the process. Anything that can be modeled in wax can be reproduced with cast gold, and these honeycombed inlays are reproduced faithfully. It is only necessary to remember to not carve away any part that is necessary to a proper adjustment of the inlay when it is pushed to place in the cavity; otherwise it can be made a mere skeleton so long as its strength is not interfered with. It, of course, must be left thick where stress is to come upon it. However, it is often the case that there is more bulk of cement than gold. When one stops to think of it, it is a most consistent filling, and the idea will be generally favored.

It is, of course, understood that gold, unlike porcelain, never chips at the edges or margins and may be made so as to protect the tooth margins; also the cement. Pure gold may be brought to a thin edge at margins and is then susceptible to being finished exceedingly close. The only objection that can be raised against gold for inlays is its color. This can be largely overcome in many cases by the method described in the February number of cutting away the gold (or wax model) as desired and baking in low fusing porcelain. Surprisingly beautiful and artistic, even esthetic, results may be obtained, and especially for anterior teeth. The combination of gold and porcelain may be used in many instances with assurance of securing good hold or anchorage when the porcelain alone would not be indicated.

Now, with all due regard to cast gold, there are cavities met with daily that may be filled by a quicker and easier method. The method has been several times described in these pages. The larger the cavity the better cast gold will serve the purpose; but with small ones, and especially simple pit holes with wall on all sides and easy of access it is a simple thing to take a small mass of crystal gold in the fingers, compress it slightly and form into a cone. Put the point of this into the cavity (shaped, of course, to withdraw) and push it home with the finger. Add more, if desired, by first pushing in a cone-shaped point to spread the gold in the cavity and fit close to margins and add the new in the pit thus made. Only moderate condensation is necessary, though one can pack pretty solidly if desired. This is, one might say, taking an impression with gold. A gold model is produced. Push a sharp point into it and lift it out. Take it and settle it down in a bit of mixed-up investment, just leaving the top only exposed. The drying out may be rapidly done by heat, and in a few moments the blow-pipe may be turned on to it. First place on top a few pieces of 18k solder. Now, heat up uniformly, investment and all, until the solder is about ready to fuse, when the blow flame, directed to the top, readily melts it and soaks it into the gold. The surface will show when the crystal gold is all filled. This, when the investment is removed, is ready to set, and a little finishing completes the job. The combination of pure gold and 18k solder makes a beautiful rich color. Such an inlay may often be made in fifteen minutes, as good as cast gold for such a cavity. If the cavity is an occlusal one, the bite may be taken in the soft gold, and if care is

taken later, not to have an excess of solder the impress will be preserved. These inlays can be made for proximal cavities by using a close-fitting matrix, held firmly to place by some suitable clamp or wedging device; but here we would prefer to make an occlusal extension when cutting the cavity and resort to casting. In the above inlay especial attention must be given to get good and pretty well condensed margins in the crystal gold model. If the solder is melted too soon, before the gold is thoroughly heated, it simply flows over the top and does not soak in. It is quite as well to hold the invested mold, with the solder on top, over a bunsen burner until it soaks in. Too much heat from the blow-flame will begin to melt the gold so that it settles down and likely destroys or changes shape of the inlay—spoils it. With a very thin gold matrix fairly well fitted to the cavity, soft gold foil has been used in place of the crystal gold, and invested and soldered in the same way, or a matrix and crystal gold may be used. The matrix provides a better margin, susceptible of burnishing when ready to set, if care is used not to melt it in soldering.

(To be continued.)

ARTIFICIAL STONE.

The introduction of artificial stone as an investment material for both gold and porcelain inlays is a decided step in advance. Porcelain inlays may be baked in the matrix which is invested in the stone, which hinders it from warping. Contours can be built while the patient is absent. In gold inlays a very accurate fit must result, because the contraction of the gold in cooling is overcome by the expansion of the stone in setting. Inlay work is brought to an exactness without the presence of the patient.—*Dominion Journal*.

DEFECTIVE TEETH.

Dr. Osler says, and his words are timely: "If I were asked to say whether more physical deterioration was produced by alcohol or by defective teeth I should unhesitatingly say defective teeth." Yet, as habitual intemperate drinking is a crying evil, so defective breathing is a human calamity, and man's untimely genital debility a great tragedy. The extent and mode of dissipation greatly account for this dreadful phyllorhea alveolaris and for the time at which it appears, which usually is at the age of 35-37.—*Dr. M. J. Emlen, Brief*.

BACTERIOLOGY AND PATHOLOGY.

BY GEO. W. COOK, B. S., D. D. S., CHICAGO, ILL.

DEAN OF DENTAL DEPARTMENT, UNIVERSITY OF ILLINOIS; PROFESSOR OF
BACTERIOLOGY, UNIVERSITY OF ILLINOIS.

In the discussion of physical and chemical properties of milk there are a number of important factors that enter into this material as a physiological product as well as a food material. In the discussion of this compound we shall see how near it comes to almost a typical food material, and yet at certain periods of the lives of animals it must be accompanied with other materials that are vital (if we can afford to use the word vital in this connection).

We have previously stated that all living organisms must have a certain proportion of proteids, carbohydrates and fats in order that they may develop and carry on their species. Therefore, we have seen that milk contains a certain amount of all of this material. In milk of certain animals we find that fat is the predominating constituent as one of the essential compounds of the food. This material is more abundant in the milk of cows than most other animals. We have also seen that the carbohydrates exist there in the form of milk sugar, the chemical formula which is $C_{12}H_{22}O_{11}$. With the addition of water to this it can be hydrolyzed into dextrose and galactose. These can farther be split into mucic and other organic acids, such as formic and lactic acids. However, the decomposition may take place in a different direction, and especially when the solution is alkaline to form a lactic acid. We have previously stated that this reaction cannot be reproduced by such forms of microorganisms as the yeast fungus, but is capable of being split up in the same way to form acids by a low form of bacteria.

Lactose or milk sugar occurs, as a rule, only in milk, but it has at different times been found in other secretions of the body, like that of the urine of pregnant women; but its presence there is usually the result of some disturbed nutritive function of the body at this time. Milk sugar becomes an anhydrous compound when slowly raised to a temperature of 100 C., driving off moisture, but it is easily redissolved when water is again added. It perhaps becomes the most diffusible carbohydrate-like material of any those known

at present among the sugar group, therefore making it most accessible as a food material from the carbohydrates. Milk sugar, as we have already stated, is easily split into dextrose and galactose by the enzyme present in the milk known as lactase. This enzyme called lactase has frequently been found in the yeast cells, and it will to a limited extent produce this splitting process in milk sugar when it is extracted from the yeast cells and applied directly to the milk sugar solution, but apparently has no effect upon this process in the living yeast cell. Therefore we observe a very strange phenomenon in the natural selections of enzymes as well as that of the low forms of vegetable life.

There is another carbohydrate found in milk that does not seem to play any great part in the chemical constituents of milk. It is a non-crystallizable substance, soluble in water, has a faintly reducing action when boiled with an acid, and behaves very much in the same way as those carbohydrates found in animal tissue that are usually referred to as animal gum. This must bring up an important point with reference to the so-called formations of acids in the body. We are taught by the best physiological chemist that a large part of the acids that are found in the animal tissue is the result of certain decomposition processes of carbohydrates in the tissues and fluids of the body; though it has been shown that in the mucoid-like material and in the jells of the tissues that galactose is one of the common products of this so-called animal constituent. It was found by McWiggen and myself that from the mucoid substances of the animal body we could extract galactose and it was then very easily decomposed into mucic acid. But if this non-crystallizable carbohydrate substance is not changeable into an acid in its decomposing processes, the acid in the tissue is then not from the source that it is usually considered to be from.

There are many derivatives of acid groups from the milk sugar that correspond in their chemical behavior with that of the same substance in the tissue. However it is fair to presume, and in fact it is almost universally a demonstrated fact, that during the pregnancy of women there is a richness of the milk sugar compound existing in the tissue and that this compound is thrown off in the salivary secretions as well as the mucous secretions from the mucous membrane of the oral cavity. These bacterial forms that are so

constant in the human mouth might account for the active decay during pregnancy. We have found that the yeast fungus does not act very energetically on milk sugar, but these lower forms of bacteria do, and since the tissues and secretions of the mouth are abundant during the period of gestation, it may be that the bacterial inhabitants find a field rich in food material that is easily decomposed.

It was found in two specimens of mucus and saliva from the mouths of pregnant women that they would at times yield from $\frac{1}{2}$ to 1 per cent of milk sugar, and this was decomposed rapidly by certain bacteria; for instance, the bacillus of pulp gangrene would decompose this material in some form of organic acid in from one to two minutes. I might say here that it was not lactic acid that was formed, at least it gave no reaction of lactic acid, but established beyond any question of doubt an organic acid, and with the precipitate we could produce disintegration of tooth substance. But in the mouths of these two persons there were no strong tendencies of dental caries, but there was some erosion started in the mouths of both. But after the birth of the children the teeth of both the mothers began to go very rapidly in the form of carious conditions. One would naturally judge from this general appearance that the physiological function of the body must have played some important part in this destructive process.

There has been much discussion regarding the part played by the constitution of the individual regarding certain phenomena that manifest themselves in the form of dental caries in pregnant women, and the influence upon the composition of the milk. The chemistry of milk and the food material are so closely in accordance with the properties of each that it is quite difficult to know just what certain constituents of mother's milk comes from certain food material. The constituents which occur in milk actually dissolve and pass into the secretions, not alone by filtration but by diffusion of the specific secretory activity of the glands themselves. For instance the milk sugar found in milk in great abundance is never found in the blood of the individual, therefore, more likely, this substance is the result of certain actions of the glands.

It has also been shown that lactalbumin does not, in the strictest sense of the word, correspond with the seralbumin. Bunge has

shown that the mineral secreted by the milk glands are not in strict accordance with those found in the blood. Therefore it will be seen that in no sense, we might say, does the composition of the milk correspond with the composition of the blood. And yet, as we have just said, the food products in general correspond in a very large degree to the food products in the milk. Of course in our discussion of the problem we are at a great loss to consider all of the chemical changes that take place in the physiological activities in the body as being purely chemical and physical. Therefore we come back to the old saying, that all of the vitalistic activities of certain cells have not as yet been explained.

There are certain agents that are used as medicines that will pass into the milk and have an important influence on the child, especially such remedies as opium and morphine when administered in large doses. There has been considerable discussion as to the influence alcohol may have on the secretions, and the best investigations that we have had access to show that there, perhaps, is but little alcohol that passes through the glands and become a chemical constituent in the milk after it has been administered to any great extent. But iodine, arsenic, bismuth, antimony, zinc, lead and mercury have been found in milk of mothers after its administration. Bile acids or bile pigment apparently never pass into the milk.

As we have previously said, the milk sugar is one of the most important constituents of milk as a purely food media, and its source is one of the very obscure problems that could further be investigated to very good advantage. There are a number of bodies in the vegetable kingdom that have a wonderful close chemical characteristic to that of milk sugar. Certain gums or mucilaginous substances have a wonderful close analogy to that of milk sugar. As we have previously stated, milk sugar is one of the principal constituents for the growth of bacteria and furnishes the ideal material for certain fermentative processes. Milk sugar or lactose is a chemical constituent, the formula of which $C_{12}H_{22}O_{11}$ plus a molecule of water. The pure carbohydrates consist of pure carbon, hydrogen and oxygen, and the chemical formula differs in accordance with the way the carbohydrate is split up. The monosaccharides and disaccharides are split up, all monosaccharides going into aldehydes or ketones, or better put, polyhydric alcohols, belonging to the group known as aldoses and ketoses.

Now in some particular way these resemble the so-called milk sugar group. These then are split up into dextrose and lavulose, the dextrose is again split into gluconic acid and the lavulose split into saccharic acid. These may be farther oxydized or hydrolyzed into another group of acid, the molecular constituents being still more simple. In the splitting of milk sugar we have hexoses, dextroses and galactoses, which are comparatively easy to break up into a group of organic acid, which is a molecular constituent that is equally simple and more directly from a complex lactose to a simple active acid. From the complexed way in which acids are formed from the so-called carbohydrates, this fermentative process can be accomplished in two ways, either by the action of bacteria, or by a chemical action produced by certain enzymes that have a constant existence in certain tissues and cells of the body. The chemical changes that take place in the fermentation of carbohydrates regardless of what kinds of carbohydrates they may be, can be accomplished by the action of bacteria much easier than it can by the glandular ferments in the tissue cells. But in this connection it might be well to state that the splitting of milk sugar in the fermentative processes can be accomplished almost if not quite as easy with certain cellular elements as they can be by bacteria. The comparative fermentative processes that can be carried on by bacteria or by the tissue cells, or their exudates, is a question that has never been scientifically worked on but little. However the rapidity with which the milk sugar compound disappear and how quickly they are split up by the action of certain enzymes of the body indicates the important fact that they are extremely active in the decomposition of milk sugar. Some experiments that I conducted at the suggestion of Dr. McWiggen we converted galactose into mucic acid by the saliva in one and a half minutes, while it took from three to ten minutes to bring about the same change in this substance with bacteria.

Our Foreign Department

THOMAS L. LARSENBERG, D. D. S., Foreign Department Editor

ATROPHY OF THE ALVEOLAR PROCESS.

BY DR. MICHAEL WURZBURG.

Paper read at the annual meeting of the dental society of Frankfurt-sur-Main (May, 1908).

(Continued from February.)

Of the three skulls of gorillas we will notice that two of them have teeth and maxillaries which are normal, whilst the third plainly shows signs of absorption. It may readily be seen that this is a senile skull, as all the teeth are affected with caries, involving the pulp chamber. I doubt that premature atrophy as we find it in mankind can be found or exists in animals, specially with wild animals; however, I have never yet found through the zoological anatomical collection, containing a great variety of animals' skulls, incisors showing traces of premature atrophy.

Let us now consider the proportions of the two atrophied maxillaries. The position of the lower maxillary will perceptibly change position in connection with its relation to the upper maxillary, as the teeth and alveolar process which supported it have disappeared.

The horizontal parallelism of the two parts has completely disappeared and the lower maxillary is brought closer to the upper maxillary, so much so that it outpasses it sideways and forward.

An occlusion of the maxillary can not be had by a displacement towards the side. The causes of senile atrophy have already been given above. We know that in cases of lues, tabes and primary diabetes there is atrophy of the alveolar process, which, in secondary stages will lead to the loss of the teeth, and consequently result in progressive alveolar atrophy.

But we must recognize (a) senile atrophy, (b) atrophy which is caused by the extraction of a tooth (the result of caries, pyorrhea

alveolaris or diseases of the roots) and (c) the atrophy above mentioned, caused by special diseases. Whilst in the first case a section of the bone shows us the peripheric region very thin and the spongius tissue with large meshes, in the second case we will see this peripheric region sclerosed and enlarged at the expense of the spongius tissue. The spongius tissue itself seems to have changed very little in comparison to the changes brought forth by senile atrophy.

The disappearance of the bones under these conditions may often be accompanied with periostitic and osteomyelitis process.

Under these general bases we will now examine *datum* of M. Professor Stolze.

As these are relative to the preservation to the height of the articulation in cases of atrophy of the maxillaries it is necessary to take measurements in both live subjects and also on skulls. These measurements will allow us to establish rules pertaining to the height of the articulation.

In his study the author admits that the pressure of the inferior maxillary upon the upper maxillary, after the loss of the teeth which supported the articulation, may be avoided with a little good will. In my opinion this hypothesis, closely examined, is not admissible.

Let us first examine the mechanism of mastication. We will see that the maxillary which is toothless always has a tendency, when preparing food for deglutition, to immitate the mechanism of mastication by bringing into contact the alveolar process which is covered with the mucous membrane.

This function often renders the mucous membrane of the alveolar process thicker, and through this act several people in a number of cases have been able to masticate bread and hard food with ease.

By these masticatory movements and by the involuntarily bringing together of the maxillaries changes in the muscles of mastication will take place. As these phenomena will take place without any special exertion upon the part of the subject the muscles will become slowly atrophied and a portion of the muscular substance will become transformed, more or less, in adipose tissue. The solidity and stability of the walls of the buccal cavity will be impaired, and, consequently, the lower maxillary take as *point d'appui* the alveolar process of the upper maxillary. This can not take place if it is flabby, which happens in cases of excessive atrophy, the lips can no further control the mouth; no air pressure can be obtained. It is exactly

this air pressure which supports the normal inferior maxillary against superior maxillary. Let us now suppose that the alveolar process has disappeared and that it is still possible for the lips to close entirely, it is certain that under such conditions the inferior maxillary will be brought with a certain force into close contact with the superior maxillary, as the suction cavity is larger. Thence these changes of forms in the faces of old women which are often noticeable.

If, through excessive atrophy or other causes of deformation, the lips can no longer hermetically close the buccal cavity the lower maxillary will drop and a flow of saliva will run from the mouth, as is often seen in aged persons.

This drawing of the inferior maxillary towards the superior maxillary causes the contraction of the muscles and by the air pressure deforming the body and external oblique lines of the inferior maxillary and the articulation to such an extent that in excessive cases of atrophy it is impossible to find normal articulations. The glenoid cavity is partly flattened, the tubercle of the glenoid fossa is lowered and the condyle has slipped forward from two to three millimeters, so that it will rest on the articular tubercle and remain there without motion, as if it were ankylosed.

Naturally, this state is developed with time only, but the origin of these transformations descends, as we could say, to the day where the bicuspids and molars were lost.

It is not admissible that one with the best of will could preserve the height of normal articulation if he does not resort to artificial teeth.

The proposition to keep in the mouth a piece of rubber for two weeks can not be considered seriously, as no one would submit to such a practice.

I can not clearly see the point in this rubber appliance. As a matter of fact, a piece of rubber placed between the two maxillaries, and suppose it would be kept in place (which is not likely the case) for two weeks, would not prevent the tendency that the lower maxillary has to meet the upper. Such an appliance should be worn for a lifetime, and that is impossible. The reason for this has been given above.

We can notice that with some people who are wearing full upper and lower artificial dentures when these are removed the jaws will

close with a noise. Yet they are used to these dentures, which they have had not only for two weeks but for many years.

Other explanations of the author say that we become accustomed to talk normally as we did before the teeth were out. In cases where all teeth have been lost a very small effort is necessary to keep the normal articulation and pronunciation. Let us now suppose that in a case of complete absence of the teeth the patient would have become gradually accustomed to an alveolar articulation instead of the dental articulation and the tongue would have modified itself in such a manner that it could not be possible to distinguish the new sound from the normal sound.

If one was altogether accustomed to this new articulation he should be compelled to learn a new pronunciation if he wanted instantly to diminish to a great extent the distance between the two maxillaries, and thereby change the shape of the tongue. This is not possible. The same position is kept, allowing us to talk as distinctly without any special effort, as we did before.

Such is the given *datum* regarding the sound in cases where the teeth are lacking and without the assistance of artificial teeth. If we resort to them the conditions are sometimes made worse than those described above.

Regarding the condition of sound, the appliance of a full upper with a given suction is somewhat delicate.

It sometimes happens that the pronunciation is affected to such an extent that the patient really suffers from it.

I have a case in mind where a teacher, following the advice of his physician, had had all his teeth removed in the early part of the holidays. When the vacation was over, as the alveolar process was not sufficiently healed to teach without any teeth in his mouth. Through work and practice he succeeded in articulating without one noticing that his teeth were lacking.

At this time full upper and lower dentures were made. But if, after the loss of his teeth, pronunciation was difficult these dentures, these artificial teeth, made it utterly impossible. The plates were altered in every way, shape and manner, but all this without success.

Under such conditions the preceptor decided to wear these dentures at meal time only. Finally they annoyed him so that he discarded their use entirely.

In my twenty-two years of dental practice I have met with one case only where the upper maxillary was excessively flat. This patient suffered very little inconvenience to articulate when the upper plate was given her. In fact, it was worn with comfort.

In the interest of our profession and art we should not base ourselves upon this unique case, and such ideas as given by Professor Stolze should not be recognized.

If it is difficult to draw a conclusion from the case above mentioned, I am nevertheless persuaded that a successive replacement of the teeth as they disappear is much more advantageous to the accommodation of the tongue and lips as preconized by Professor Stolze.

In all events, it is an unquestionable fact that one having an upper artificial plate, fitting properly, can articulate much better under all conditions. In cases of a very flat arch a metal base is very advantageous and may overcome many faults of pronunciation.

(To be continued.)

RELATION BETWEEN THE DISEASES OF THE EYES AND
THE DISEASES OF THE TEETH—OCULO-DEN-
TAL PSYCHOSIS.

BY DR. M. BOREL, OCULIST.

(*Le Laboratoire et le Progres Dentaire reunis*, Paris, Oct. 29, 1908.)

(Continued from February.)

M. Santamaria, who mentions this case has come to the following conclusions: First, this is not a case of reflex amblyopia, as often is the case with intense dental neuralgia; second, the fact that the patient is a painter by profession renders this case of dyschromatopsia very interesting; third, amaurosis and dyschromatopsia confirm the fact ascertained by Trombetta that the symptoms which appear in individuals affected with traumatic neurosis are in preference localized in organs which have a predominating importance, with the profession of each patient; fourth, there is no relation between the seriousness of the traumatism and the effects of the consecutive neurosis; fifth, the slightest irritation may have serious and unexpected consequences when dealing with patients affected with neurosis.

Paper read before the odontological meeting of Neuchatel, May, 1908.

Cutaneous and pharyngeal anesthesia, the absence of all ocular lesion, the sudden cure of amaurosis, concentric stricture of the visual field in *both eyes* and the dyschromatopsia show plainly that this is a case of hysterical cecity; the traumatism and the pain element have caused an autosuggestion ocular trouble, ending in some cases in blindness which could be cured by suggestion.

This blindness has no relation with the organic visual lesion.

No matter what emotion, nor what slight traumatism on any given part of the body of a nervous subject who is predisposed to suggestions, this would produce the same cure of cecity, which, if properly treated, would be cured.

If we are not very familiar with hysteria, which has hundreds of different forms, which does not follow the anatomical course of the peripheric nerves, and no more obeys cerebral localization, we can not understand these deceiving nervous cases having such fantastic evolutions.

In 1886, in a study entitled "Hysterical Affections of the Ocular Muscles," which was published in the "Archives d'ophtalmologie" de Paris, 1886-1887, after laboring upon these questions, I demonstrated that a good number of these cases of ocular paralysis to which a reflex or another origin has been given still were of the domain of hysteria.

Ocular reflex diseases and hysterical diseases offer a very remarkable parallelism. For instance, (1) the etiology of both is often caused by an emotion, a pain; (2) the invasion of the disease offers the same coincidences; (3) as to symptomatology, it points out to us that observation of cases of paralysis and amblyopia caused by dental neuralgia.

Paralysis of the muscles of the eye caused by dental caries, in a case related to us by Mr. Terrier, clearly demonstrates to us the action that hysteria has upon such cases. Dental caries, roots, pathological conditions brought upon by the eruption of the third molar (*wisdom tooth*) may also have the same influence upon the eyes; such as these slight traumatic troubles which will awaken hysterical diathesis by manifestations of oculo-motor or sensitive symptoms, which may be caused by tapeworm (*tenia*), masturbation, pregnancy, dysmenorrhea.

I have found a very typical case where the diagnostic should be reformed. M. Selligmuller (Uber intermitterender Blepharospasmus.

Klinmonastbl. f. Bugenheilk. 1871, p. 203-215) relates the case of a woman 50 years of age who was affected with spasms of the orbit from two to ten times per hour. These spasms could be produced voluntarily *by pressure on the lower molars*, or on the sub-orbital region, and even on the transverse tubercle of the superior cervical vertebrae, and as well on the eight dorsal vertebrae.

We will not deny that we are dealing with nervous dynamic phenomena instead of organic phenomena. The sensitive points which produce these spasms are hysterogenic points.

An hysterical woman, age 21, was affected with a case of left hemianesthesia, with a predisposition to phenomena of reflex origin, was suddenly affected with violent pains on the left side of the face; a few hours later, the left eye was drawn upward and outward (the right eye had been enucleated), with intense blepharospasm. This condition lasted for a period of three months, when she consulted Mr. Terrier (I), the pupil was completely hidden by the upper eye-lid, the pupil was also dilated and had very little motion. When Mr. Terrier conceived the idea of having all the various teeth removed, the patient was then able to close and open the eye; after the second extraction, she could see the daylight, and following the third extraction she could distinguish objects. Two days later all symptoms had disappeared, and in six days she was entirely cured and enjoyed perfect vision. Nevertheless she had hysterical spasms six times a week, but the eye was completely cured.

This nervous diathesis is so evident that no one can deny its influence and proves the action of dental caries in such cases.

Besides, the above example is not the only one that stands to confirm the uncommon observations of strabismus by dental caries; the action of neurosis, which we at first considered as an hypothesis, has developed into certitude by the fact that we have seen a number of these nervous cases having a complete series of these nervous phenomena and with the most evident hysterical stimata becoming normally concomitant of these reflex affections; the influence of dental caries as well as that of the suborbital neuralgias, if looked upon as reflex causes, point out to us plainly to what an extent we have been misled in the action of the trigeminal nerve, when hysteria was hidden under the most conspicuous appearances.

(1) *Journal de Med. et de chirurgie pratiques*, 1875, p. 549.

M. Mengin (I) has published a similar, which he claims was also pareil dentaire. (Rec. d'ophthalmologie, 1878, p. 324). caused by dental lesions. "Following an alveolar periostitis, a patient was affected of tonic spasms and of ocular paresis accompanied by *contractures of the right intern muscle and with spasms of accommodation.* At the same time, he noticed a *stricture of the visual field, amblyopia and achromatopsia.*"

It seems as if these symptoms were the complementary hysterical symptoms referred to by Mr. Terrier.

M. Renard (Rapports of the Relation Between Dental Affections and Certain Cases of Ocular Troubles. Paper read before the French Society of Ophthalmology, Gazette Med. de Paris, May, 1886), a case of mydriasis brought upon by dental caries; he mentions amaurosis and stabismus as having sometimes the same cause. These accidents, says he, are found with *neuropaths, principally with women who are subject to neuralgias.*

The danger of *blindness* from teeth extraction is faulciful, although we should except these cases which could result from a violent hemorrhage, as we know of cases of partial blindness which are uncurable, the result of sudden hemorrhage, such as hemorrhages of the stomach caused by the round ulcer.

Personally, I do not know of any case of atrophy of the optic nerve caused by a dental hemorrhage, but it is very likely to happen. Most probably such cases of blindness have occurred without having been diagnosed.

It will sometimes happen that hysterical patients, suffering with acute dental neuralgias, will call on the dentist to have all their teeth removed, although these are all in perfect condition, and they will finally find practitioners who will extract their teeth. But with these hysterical patients, this does not remove the condition; when the teeth are out these poor, hysterical patients continue to complain with neuralgic pains, which are localized on the alveolo-maxillary stumps, which they would gladly part with. Binswanger mentions a number of these cases where the teeth could have been saved.

It is moral treatment and auto-suggestion that these nervous cases need, and not surgical treatment.

The case of Blake (*The Medical Journal of Dental Science*, No.

(I) Mengin. Des accidents oculaires consecutifs aux lesions de l'ap-

15) cites oculo-hysterical troubles in a patient where the dental system was a purely occasional factor. Nevertheless, Blake has observed the case of a young girl of 15, who became affected with blindness, when one day all her teeth were removed. Oh, miracle, when she returned home, her eye sight was restored. According to Blake, this is a case of hysterical blindness, and, says he, is this not the best way to give rise to auto-surgery?

Galezowski (*The British Journal of Dental Sciences*, 1888, p. 495) relates two cases of blindness cured by extraction of teeth; in other cases, blindness followed the extraction of teeth, which disappeared a few days later.

The case of Wecker (Wecker and Delago, *Falle v. Sehstoerung bei Zahnneuralgien*, *Annal d'Oculistique*, 1886, p. 130) is certainly that of a nervous origin. This case was that of a dressmaker, age 28, who lost the sight of her right eye following neuralgias of the superior maxillary; two weeks later the left side became affected with dental neuralgias and she finally became totally blind. No retraction of the pupils could be noticed. Five teeth were removed, and as she came out of the narcosis she said that she could see from her left eye; she could also see, but very little, with her right eye. Seventeen days later three carious teeth were removed and her eye sight was completely restored—she was cured.

Henry Hancock (On Cases Connected with the Teeth, *The Lancet*, 1859, p. 80) relates the case of a school boy, who suddenly one morning became blind. Supernumerary teeth were considered as the cause of blindness. Hancock removed three permanent teeth and four temporary teeth. The same evening the child began to see, and seventeen days later he could see perfectly well.

(*To be continued.*)

THE X-RAYS IN FRONTAL SINUSITIS.**VARTCHEBMAIA GAZETA.**

The diagnosis of sinusitis offers great difficulties. Skiography renders excellent services in determining the conditions of surgical intervention. N. P. Trofimoff has used it in three cases of frontal sinusitis, his diagnosis being fully confirmed by the operation.

Skiography permits not only of determining the limits of the frontal sinus, but in cases of morbid complications also reveals chronic sinusitis with dilatation. Moreover, it is possible to observe the structure of the cavity, if there is but one, or that of the frontal cellules.

The dimensions of the cavity also can be approximately indicated. These results are the more important, as, up to the present time, we have no means of infallible diagnosis of such cases.—*Le Laboratoire.*

RECESSION OF A TEMPORARY TOOTH IN THE MAXILLARY.**BY PROFESSOR POTR, HEIDELBURG.**

(*L'Odontologie*, Paris, September 30, 1908.)

Cases of recession of teeth in the maxillary are very rare. The blows that teeth may receive will usually result in luxation or fracture of the teeth.

The writer has had occasion to observe a case of recession of a temporary tooth in the maxillary in a child three years old, who in falling had struck the back of a chair.

Under examination the writer noticed the absence of the left central incisor; at its place the gums had the appearance of a fresh socket such as is the case in a recently extracted tooth.

At about half a centimeter from the gingival line a white body the size of a pea was found and gave the impression of an erupting incisor tooth.

The case was placed under the X-rays and the diagnosis was confirmed. The left central incisor tooth had been displaced and was found above the follicle of the two permanent central incisors.

ORIGINAL CONTRIBUTIONS

TOOTHSOME TOPICS.

BY R. B. TULLER.

I don't kno how the perfeshun ever got a long as wel as it has 'fore pa got to be promernent in it.

They coedent do much without him now. He is in it up to his nec most of the time—he sez.

I don't kno when er how he does it all, but I heer him tellin' his pashunts 'bout the wurk that he is a doin' fer the perfeshun an' humanity.

So often he sez, "All these years the perfeshun has ben goin' along doin' so an' so and never seemed to think ther wuz enny uther way til I took holt of these matters and showed 'em different.

"Why I've made a hull lot ov patent things an' jest give 'em to the perfeshun free gratis fer nothin'. I mite a bin ritch if I had had 'em pattered.

"I'm a doin' a wurk now whitch benefits all the other fellers; but do you kno it ain't preeciated by ony a few. Some fellers ar usin' it rite a long an' don't kno I gotter up.

"Some other fellers, when they see a feller doin' sumpen fer 'em, jest get jellus rite off an' begin to akuze you ov pushin' yerself to the front. But they don't do it theirselves, an' somebody has to. An' I'm one of them kin of fellers what don't wate when I think a thing otter be done."

Now, I don't jest kno when pa duz all these things what he tells, but then I has to go to scool part of the time.

I kno ma don't think pa's enny to bizzy sumtimes, an' she sez he otter hav som shoe cobblin er somethin' to do on the side.

How sumever ma knos how to keep him buzzy some times, an' then pa looks like a hired girl with a long apurn on washin' the dishes er poleshin' the silver (plated) things. O pa's handy a round the hous.

One ov pa's oldest pashunts is Mrs. Booley. He got her a way

from the dental collige when he wuz a student, an' she has stuck ever sense; caws pa tole her he wood do her wurk at collige prices.

He was tellin' her 'bout all the things he has done for the perfesh fore he went to collige, an' sence, fer pa done dentristy fore he went to scool, an' he cood tell the perfessers a lot ov things they didn't kno 'bout teeth.

"Yes," Mrs. Booley sed, "I kno that ever sence I knowed you, Dr. Bunkum, you hav allus had your shoulder to the wheel, an' ben a doin' sum wurk fer the good ov the perfeshun, an' your s'cieties an' others. You are the one, ain't you, that showd 'em all how to make teeth without plates, an' how to do painless dentristy? I tell you, Dr. Bunkum, your perfeshun otter think a lot ov you an' if they don't do sumpen nice fer you they all otter be kickt. How menni societies do you belong to now, doctor?"

"Well," sez pa, "I uster blong to 'em all, but it is no good. I cut 'em all but the best. I don't hav the time. I blong to the Odontyergaspit society, whitch is the biggest ther is, an' to the State society. Them two fer big an' then to a smaller but awful select society fer the best. That takes the kake. It is the Odontohungrical society. It is cumpozed of ony the very best men in the perfeshun, an' we have a basket—a feed—every time we meet, an' then discuss important questions over our segars. We handle subjicks what the ordinary fellers don't grasp at all—the most deep an' sientifik ther is, an' settle them the way they otter be.

"The men in that society ar all way up. They ar perfessers, etc., or has bens as such, an' all are expirts. Some are teechers an' some are peddygoggies, an' sum are lay members.

"Then we all ar doin' sumpen—sum wurk to advance our perfeshun at large an' at small."

Mrs. Booley was awfully imprest. She sed, "Doctor, what's a peddy goggie?" Pa answered, "A peddy goggie; why, a peddy goggie is a—well, it is hard to explain Mrs. Booley. A peddy goggie is—well it's a latin er greek word an' it meens a feller who tells how *he* does it—not the same old way."

"An'" sez Mrs. Booley, "what's a lay member?"

"A lay member, Mrs. Booley, is one which is considered quite onnorable—one who is highly appreciative an' lays back an' takes in all the other fellers say, an' perticlarly the peddy gogs, an' clap ther

hands an' take great interest. Lay members is generally wise guys who know how to size up things in general and each one in particular. They ar quite essential to anny organization an all cummunities."

Mrs. Booley sed, "I'm a purty good jedge of human natur, an' I knowed when I first seen you, Doc Bunkum, that you was a real car-racter an' that you'd made a go ov things, an' that's why I tied up to you to hav wurk don. An' then your so reasonable, an' that's why I quit goin to the collige to git my wurk dun."

Pa felt set up some an' Mrs. Booley is so imprest with what pa sez he likes to impress her more an' he sez, "Dentristy is a great sience, Mrs. Booley. Peepul used to think that tooth dekay was jest common rot; but do you kno that it is bacteria er bugs that ruins the teeth? We have a man in our society that is bughouse—I mean a bugologist, an' he has seen 'em an' how they wurk. You can't see em with the naked eye; he puts 'em under a powerful magnifier. They ar a bizzy bunch an' grow by the millions. You can't see them on your tooth, but they are there an eat holes, an you can't brush 'em off they ar so small.

"It takes 'em monts to naw a little hole, but they devide up an' part naw one time an' part a nuther until they git thru, an' bild homes like clif dwellers; ony they go on and on; naw in until they ruin their homes an' yer tooth."

Mrs. Booley believes every word pa sez, but ma don't allus. She sed to pa, "Say, Joel, what kin of bughouse stuff was you passin' up to Mrs. Booley? Does she take it all in? I notice you hav a lot ov talk-talk every time she's here—mutual admiration—but I notice that when your hed an' imagination get to goin' so lively that you don't wurk very much ner very fast, an' you cum perty near bein' a annaniaser. It must be very nice to work yourself up to think out a lot of things you done, when you never dun nun of 'em. The society you go to some times isn't zactly what you call it; it is Odontgohome-hungreyerdryical. Joel, you hain't no wizzard, you are jest what you are, ordinary Bunkum. You ar a would-I-were."

DR. TAGGART AND THE DENTAL PROFESSION.

The editorial in the *Dental Review* for February entitled "The Tragedy of the Dental Profession" states the case fairly and truthfully and makes pretty clearly apparent the "tragedy" of the situation

as it relates to Dr. Taggart. It seems necessary however, if it is possible, to bring more sharply and clearly to the attention and the consciences of the dental profession the duty that we owe to Dr. Taggart.

There is no doubt whatever that the dental profession will continue to maintain its opposition to the holding by members in good standing, of "process patents" which require an office license or the payment of royalties upon operations performed, but moral questions are apt to have several aspects and those who have insisted strongly upon the relinquishment of the legal rights and emoluments which an inventor might receive under such a patent have mostly ignored the responsibilities which the profession must assume when it insists upon such an ethical requirement; namely, the obligation to prevent or remedy any instances of gross injustices that may arise by reason of obedience to that ethical rule. If there are any who are insisting upon such compliance by Dr. Taggart and have not yet fully discharged their personal obligation to him it is worth while for them to consider carefully whether they belong to that old sect that received the indignant and scornful rebuke, "For they bind heavy burdens and grievous to be borne, and lay them on men's shoulders; but they themselves will not move them with one of their fingers." It is to be noted that before taking any steps to enforce his supposed legal rights under his process patent he waited at least eight months after his machines were ready, during which time the dental profession had ample opportunity to show their appreciation of the obligation above referred to and their disposition, if they had any, to treat Dr. Taggart with something like justice.

Dr. Taggart has spent two years, more or less, of his time, all of his money, and strained his credit to the limit, and, whether willingly or unwillingly, he has given it all to the profession, and the profession is in full possession of it all today.

Now the solution of this situation is not, chiefly, by organizations and subscriptions, and resolutions by societies or even by appropriations from society treasuries, all these may help some but the only proper and adequate solution is by the individual action of every man who is casting any inlays.

Probably there are not more than a dozen men in the United States who would dare to say positively that they would now be making any cast inlays except for the work and the announcements done by

Dr. Taggart. The making of inlays has a money value to every man who is making them and that value he has received from Dr. Taggart and owes to him a just compensation in money for that value received. The whole matter resolves itself, in this aspect of it, into a question of simple, common, every day honesty, exactly the same kind of honesty we all expect our patients to practice toward us and that we wish them to believe that we practice ourselves.

There are probably at least one thousand dentists (perhaps there are two thousand) in the state of Illinois who are making cast inlays. If each of these men will pay his debt to Dr. Taggart, in amount having proper relation to the money value of the process to himself, or more properly still by buying Dr. Taggart's machine, the price of which represents Dr. Taggart's judgment as to what he is entitled to receive from those who use his process, it need not be doubted that Dr. Taggart will gladly relinquish all attempts to collect office licenses or royalties.

Ingratitude and dishonesty are pretty hard words, but it is doubtful if any sophistry, or special pleading, or extenuating circumstances, will enable any man to squirm out from under them if he refuses or neglects to repay his pecuniary obligation to Dr. Taggart.

EDMUND NOYES.

A PRECAUTIONARY MEASURE.

When extracting a tooth or doing a surgical operation in the mouth, under a general anaesthetic, just as the patient is fairly well under put the finger on base of tongue, bring it forward and place a large roll of cotton two or three inches long across the base, just forward of the epiglottis; the tongue will not drop back and no blood or debris will get back of cotton. If the operation is a long one change cotton as often as necessary by drawing one end of the roll forward and passing a fresh one into place. If this is done until patient has regained consciousness sufficiently to expectorate no blood will trickle down the throat, to be vomited up afterwards, or, worse still, get into the trachea to cause strangulation. Nor is there any danger of a tooth or root slipping out of the forceps and going down so far that the operator suddenly develops a case of nervous prostration.

F. H. SKINNER.



EDITORIAL

LECTURES ON GENERAL ANAESTHESIA IN DENTISTRY. By William H. De Ford, B. A., D. D. S., M. D., M. A. Published by John T. Nolde Mfg. Co., St. Louis, Kansas City, Mexico City.

This work is the result of a number of written lectures by the author, published, as he states, at different times in the dental brief. This publication brings to our mind the feeling of unrest regarding our knowledge of general anaesthesia. It also illustrates the general activity of the dental profession in trying to establish some means whereby dental operations can be relieved of some of their painful horrors to the patients.

This work has been presented by a dentist who is not only familiar with the subject of general anaesthesia but is familiar with all of the phases of dentistry, consequently he is able to give good instructions on the dental needs of a general anaesthetic, the proper time and place for its administration, and the results of such a procedure.

The author in the first chapter on page 13 says, "If the dental diploma is worth anything, if it means anything, if there is any potentiality in it, it carries with it the right to do those things in the office of the possessor which are taught in the curriculum of his alma mater." He goes on and states, "In all other departments, dentistry has made wondrous progress, outstripping most all other professions in the matter of advancement; yet in this particular branch, anaesthesia, which should have, by right of discovery and inheritance, excelled all other specialities of medicine, the dentist has been a laggard and a coward." This is a very plain statement and carries with it a great deal of force. But the question arises, have the dentists as a whole been so backward as the author would lead us to believe in this statement?

The dentists in anaesthetics have gone as far, it seems to me, as the medical profession; and according to the statistics a larger number of deaths from general anaesthetics has come from the dental offices than from the physicians. It was my privilege not long ago to hear a discussion in one of the leading medical societies as to whether or not

the general practitioner of medicine was really justified in administering a general anaesthetic, and the general opinion of those who took part in the discussion was that this matter should be left to a person who is specially skilled in the administration of general anaesthetics. So that same old question naturally comes back to us, has the dentist the moral right to administer a general anaesthetic for dental operations? My personal belief is that a dentist has but little, if any, right to administer ether or chloroform as a general anaesthetic to his patients except under the most favorable circumstances, and then only for the purpose of doing extensive surgical operations in the mouth. As for the administration of nitrous oxide gas, I think that the dentist in his college training becomes more proficient in the administration of this anaesthetic than the medical student in the administration of ether and chloroform. After the graduation of dental students there are but few I believe who are not well qualified to administer nitrous oxide gas, and who do not exercise greater skill in this particular than any class of men who are expected to render a service of like nature to suffering humanity.

In this work of general anaesthetics there is but little one can take exception to, but there is much of the subject matter that could be discussed with benefit to all.

The author has discussed with a great deal of interest ethyl chloride and somnoform. The pharmacological actions of these chemical compounds have been of great interest to all persons who have discussed or investigated them, and who have experimented with them on the animal body. There is a large number of the methane series which are classed under organic chemistry that possess more or less narcotic power. Alcohol and chloroform are classed with this group. It is a well known fact that the combination of carbon and hydrogen is possessed of a special relation to the protoplasmia of the nerve cells. Apparently the carbon radicle combines in an open chain which has a specific depressing power upon the cerebral nerve centers. Ethyl, propyl, butyl and amyl are usually classed as poisons, and their toxicity is in accordance with their naming under this group. Each of these compounds, in the order they are classed, become less soluble in the fluids of the body and are not quickly absorbed. So it would naturally be expected that ethyl chloride would be extremely toxic, much greater in proportion to that of chloroform.

I think those of us who have had considerable experience in the use of chloroform in surgical practice are well aware of its dangers and

sometimes of its unexpected action in particular individuals. The extensive use of ethyl chloride at one time, and its fall into disuse by its early advocates, is a fairly good reason that the greatest precaution should be used in its administrations as a general anaesthetic. As for the administration of somnoform, it is very much like the story of the two colored men discussing the advantages and disadvantages of black and white chickens. One maintained that the white chickens possessed the advantages of being easily seen in the hen-roost, but that the black chickens were more easily concealed under the coat-tail than the white ones. For a quick anaesthetic somnoform has a great advantage, but its after effects for patients, and especially for dental use, makes it very unattractive in some particulars. The author believes that there is a decomposition of the *mixture* that produces the nausea of the patient. I think no one would gainsay that this was not true, and this is the very reason that makes us question the advisability of its administration at all. The author also thinks that the smaller capsules will overcome to a degree this decomposition process. But my clinical observation has been very largely with the smaller capsules and I have seen but few patients that are not hauseated after its administration in any form. However, it may be said that the use of this agent has met with a number of substantial advocates, and I question whether it is going to be entirely dispensed with as a general anaesthetic.

This work on general anaesthesia is one that illustrates the need of a text book for dental students. The historical part of this work on each group of substances makes it a splendid reading book, not only is it attractive in the matter of handling the subject, but it is so easily handled, so plain and comprehensive in its statements, that it makes it a valuable text book as well as a good reference book for the practitioner. And no dentist who is at all interested in this subject could fail to be much benefited by the use of its pages.

In my review of this work I have not given attention to the details that it justly deserves, but I hope that I have been able to interest some one in the work sufficiently to thoroughly study its contents; for I think an author who has done so much in a particular line as the author of this book deserves the attention of his fellow practitioners in a line of work that is so important to the general practitioner of dentistry. And for one I wish to congratulate the author and the publishers for this valuable contribution to the science and art of our profession.

G. W. C.



ABSTRACTS AND SELECTIONS.

THE MANAGEMENT OF NERVOUS AND TIMID PATIENTS IN THE DENTAL CHAIR.*

BY WALTER C. AMES, D. D. S., SMITHFIELD, VA.

The management of nervous and timid children in the dental chair is a subject in which I have been deeply interested, and for this reason I am making these few remarks, hoping to bring about a discussion of the subject and thereby make it beneficial to us all. When we think of the terrible results of the premature loss of the temporary teeth, namely, irregularity and the suffering attended thereby, I think we ought to bend all our efforts, use all our persuasive powers, and exercise patience in the handling of children, in order that we may preserve their temporary teeth until the permanent ones are ready to take their place. These first moments spent in an operating chair may make an impression which will last through life.

I think most of us pay too little attention to the care of children's teeth until the permanent ones need our attention. We are annoyed by the timidity, restlessness and inquisitiveness of our young patients. In caring for the permanent teeth, our heads should be full of wisdom. In managing nervous and timid children, our hearts should be full of love. In other words, in caring for the temporary teeth, scientific methods cannot always be strictly applied.

As an eminent writer upon this subject has said: "In the successful management of little children there is a condition that precedes wisdom and antedates experience, and that condition exists in the heart rather than in the head of the operator."

The rude instrument is tempered with gentleness and made a means of mercy in the hands of one who has a deep love for little children and an operator who has little ones of his own and whose heart, in consequence, is kept warm and sympathetic, will be more likely, all other conditions being equal, to be more successful in handling these little creatures.

*Read before the Virginia State Dental Society, July, 1908.

Children are interesting to handle and study, but difficult to thoroughly understand; how few of us really understand children, and the reason, I think, is that we do not go about it in the right way. The great secret in handling a child successfully is to win his confidence, and when this is secured the battle is more than half won; and once gained, retain it at most any sacrifice.

A child is a severe critic, his confidence is usually easily won, but it is as easily dissipated by any act of insincerity or lack of sympathy.

Timidity cannot be thrashed out of a child. Parents try sometimes to force a child to allow an operator to perform some minor operation, or advise or request the operator to use deception, while, of course, such must be treated with due deference, they should not influence us to the point of yielding. I have often found that by getting a child alone I could accomplish more than when the parents were with them; they not only seem to have more confidence in the operator, but have more in themselves. We must at all times be able to recognize the amount of courage of our patient, and not go beyond it, for once beyond, the child is entirely undone.

I do not think it wise to try to accomplish too much at the first visit. If I can get them to take a seat in the chair and do some little thing, if nothing more than putting a piece of cotton in a cavity, but being very careful not to hurt them in the least, I consider I have accomplished something, and after a few such visits I find I am able to do much more. In this connection I recall one case especially that I had to deal with a few months ago. A very nervous, timid little girl visited my office every day for a week before she would allow me to put an instrument of any sort into her mouth. She would take her seat and shake as though she had a chill, and I could see she was trying to control herself, and when I was about to give up in despair I succeeded in persuading her to allow me to fill a very simple cavity, and after that I did quite a bit of work for her. As in this case I always fill the simplest cavities first, and by proceeding as above, you gain the child's confidence and good will.

Whatever you do, never tell them a lie; whenever I think a cavity will be a little painful in excavating, I tell them; don't tell them that you are not going to hurt them, and in a few seconds try to excavate a sensitive cavity or extract a tooth. I find it is always best to be perfectly frank with them. In cases where the child is

extremely nervous and unmanageable, we may not be able to excavate all cavities thoroughly and accurately as we should like. If we attempted to do that we may cause so much pain and may produce such an effect upon the nervous system of the little patient, that the object sought—the salvation of the teeth—may be entirely defeated. Instead of insisting upon thorough excavation, it is better to prepare the margins of the cavity with sharp instruments, slowly, and when necessary, even leaving some little decay in the bottom of the cavity. If the margins are fairly well prepared and nitrate of silver is applied to the decay left in the cavity, then filled with oxyphosphate, this will practically stop decay. Then in six or eight months afterwards the oxyphosphate, having worn down some, the cavity can be thoroughly excavated and filled in such a manner, and with such material, that it will last the life of the tooth. But management and not method is the object of these few remarks.

In conclusion I will say that we should always use tact and temper our every act with love and sympathy, thereby gaining the child's good will and confidence.—*Dental Summary*, December, 1908.

LYSOFORM.

In disinfecting root canals pure lysoform has been found to emit the fumes of formalin in a very mild form, of which it contains about twenty per cent. It affords thorough sterilization of putrid fields or pulp remnants without any danger of periodontitis, which often follows the application of a fifty per cent solution of formalin. It is to be hoped that further data concerning the efficacy of lysoform as a root canal dressing be collected and published.—*S. F. Mueller, Cosmos*.

IODIN AS A GERMICIDE.

In a solution of iodin varying from two-tenths to one per cent, we have a very potent germicidal agent, far superior to mercury bichlorid—the acknowledged leader of all other antiseptics. It approaches nearly to the ideal antiseptic in that (a) it is easily prepared and is stable; (b) is non-toxic and non-irritating, in the strength effective, being only one-fourth as toxic as mercury bichlorid; (c) it does not coagulate albumin or form inert compounds with tissues; (d) it is effective in a very brief time; (e) the stain it produces soon disappears; (f) last and most important, it possesses a remarkable penetrating power. A five-tenths per cent solution is amply strong for all practical purposes.—*St. Louis Medical Review*.



MEETINGS

NATIONAL SOCIETY MEETINGS.

National Dental Association, Birmingham, Ala., March 30, 31, April 2, 1909.

American Dental Society of Europe, Wiesbaden, Germany, April 9, 10, 12, 1909.

STATE SOCIETY MEETINGS.

Alabama Dental Association, Anniston, Ala., May 11, 1909.

Arkansas State Dental Association, Hot Springs, Ark., May 26, 27, 28, 1909.

Connecticut State Dental Society, Waterbury, Conn., April 20, 21, 1909.

Florida State Dental Society, Ocala, Fla., June 17, 18, 19, 1909.

Iowa State Dental Society, Des Moines, Iowa, May 4, 5, 6, 1909.

Illinois State Dental Society, Danville, Ill., May 11, 12, 13, 14, 1909.

Indiana State Dental Society, Indianapolis, Ind., June 29, 30, July 1, 1909.

Louisiana State Dental Society, New Orleans, La., April, 1909.

Maine State Dental Society, Portland, Maine, June 24, 25, 26, 1909.

New Hampshire State Dental Society, Rutland, May 19, 20, 21.

Michigan State Dental Society, Kalamazoo, June.

Nebraska State Dental Society, Lincoln, Neb., May 18, 19, 20, 1909.

New York State Dental Society, Albany, N. Y., May 8, 9, 1909.

Ohio State Dental Society, Columbus, Ohio, December 7, 8, 9, 1909.

Oklahoma State Dental Society, Oklahoma City, Okla., June 3, 4, 5, 1909.

Utah State Dental Society, Logan, Utah, June, 1909.

Vermont State Dental Society, Rutland, Vt., May 19, 20, 21, 1909.

West Virginia State Dental Society, Wheeling, W. Va., October 13, 14, 15, 1909.

Wisconsin State Dental Society, Milwaukee, Wis., July 13, 14, 15, 1909.

INTERNATIONAL DENTAL CONGRESS.

The congress will take place in the Reichstag building.

The Honorary President of the congress is Geheimrat Prof. Dr. Waldeyer, director of the First Anatomical Institute.

Honorary Members—Dr. Naumann, chief of the medical department of the "Kultusministerium." Geheimrat Prof. Dr. Kirchner.

The business of the congress is conducted by the following committees: 1. Committee on organization. 2. Berlin local committee. 3. Chairmen of the different sections.

I. The committee on organization consists of fifteen gentlemen: President, Privy Councillor Professor Dr. Walkhoff, Munchen, Brienerstr, 47. Vice-presidents, Professor Dieck, M. D., Berlin, Potsdamerstr, 113; Professor Hahl, Berlin, Lützowstr, 53; Hielescher, Coln o. Rh., Hohenzollernring, 30. Secretary General, Schaeffer-Stuckert, D. D. S., Frankfort a. M., Kettenhofweg, 29. Secretary, Konrad Cohn, M. D., Berlin, Potsdamerstr, 46. Treasurer, Blume, Berlin W., Unter den Linden, 41.

II. The Berlin local committee is composed of thirty-eight gentlemen. Presidents, Professor Guttmann, court dentist, Potsdam; Robert Richter, D. D. S., Berlin, Victoriastr, 23; Dr. P. Ritter, Berlin, Königgrätzerstr, 94. Secretaries, Weidemann, Berlin, Bülowstr, 1; Gutmann, Berlin, Alexanderstr, 71; Pursche, Berlin, Rankestr, 30. Treasurer, Helm, Charlottenburg, Berlinerstr, 169a.

The Berlin local committee will arrange the order of proceedings, will be pleased to procure lodgings for foreign colleagues and supply them with all information concerning their journey, their stay in Berlin, etc. All questions regarding the above mentioned subjects should be addressed to the president of the local committees, Professor Guttmann, Potsdam.

III. The chairmen of the sections. Twelve sections have been formed, all of which can hold in sessions in the Reichstag building simultaneously.

Section 1. Anatomy, Physiology, Histology. Chairman, Dr. Adloff in Königsberg i. Pr., Weissgerberstr, 6-7.

Section 2. Pathology, Bacteriology. Chairman, Professor Dr. Römer, Strassburg i. E.

Section 3. Chemistry, Physics, Metallurgy. Chairman, C. Birgfeld, Hamburg, Alsterdamm, 1.

Section 4. Diagnosis and Special Therapeutics, Materia Medica. Chairman, Prof. Dr. Michel, Würzburg.

Section 5. Surgery of the Mouth and Surgical Prothesis. Chairmen: Geheimrat Prof. Dr. Partsch, Breslau; Prof. Dr. Schröder, Berlin.

Section 6. General and Local Anæsthesia. Chairman, University Lecturer Dr. Fischer, Greifswald.

Section 7. Preservative Dentistry. Chairman, Prof. Dr. Sachs, Berlin, Kurfürstendamm, 247.

Section 8. Artificial Teeth, Including Crown and Bridge Work, Ceramic. Chairman, Prof. Dr. Riegner, Breslau.

Section 9. Orthodonty. Chairman, Heydenhauss, M. D., Berlin, Potsdamerstr, 121.

Section 10. Hygiene of the Mouth and Teeth. Chairman, Dr. C. Röse, Dresden.

Section 11. Instruction and Legislation. Chairman, Dr. Bitter, Berlin, Königgrätzerstr, 94.

Section 12. History and Literature. Chairman, Hoffendahl, Berlin, Schöneberger Ufer, 20.

During the week of the congress an official daily journal will be published in three languages (German, English, French). Editor, Konrad Cohnt, M. D., Berlin, Potsdamer Strasse, 46.

All gentlemen desiring to give papers or demonstrations, are requested to announce the same as early as possible to the chairman of the respective section.

An international scientific and industrial exhibition will be combined with the congress. Professor Dr. Dieck, Berlin, Potsdamerstr, 113, Villa 3, has taken charge of the management of this exhibition, which is to be conducted on a large scale, and will furnish further information regarding the same.

SOUTHWESTERN MICHIGAN DENTAL SOCIETY.

The annual meeting of the above society will be held at Kalamazoo April 13 and 14. Very truly, C. V. JOHNSON.

MINNESOTA STATE BOARD OF DENTAL EXAMINERS.

The next regular meeting of the board for the examination of applicants for license to practice dentistry in Minnesota will be held at the Dental Department of the State University in Minneapolis beginning on March 9, 1909, at 9 o'clock a. m. All applications must be in the hands of the secretary by March 1, 1909. For further information address the secretary.

DR. GEO. S. TODD, Secretary,
Lake City, Minn.

ILLINOIS STATE BOARD OF DENTAL EXAMINERS.

The next regular meeting of the Illinois State Board of Dental Examiners for the examination of applicants for a license to practice dentistry in the state of Illinois will be held in Chicago, at the Chicago College of Dental Surgery, southeast corner of Wood and Harrison streets, beginning Thursday, June 10, 1909, at 9 a. m.

Applicants must be possessed of the following requirements in order to be eligible to take the examination: (1) Any person who has been engaged in the actual, legal and lawful practice of dentistry or dental surgery in some other state or country for five consecutive years just prior to application; or (2) is a graduate and has a diploma from an accredited high school or a certificate signed by a state superintendent of public instruction or his duly authorized deputy or equivalent officer, acting within his proper or legal jurisdiction, showing that the applicant has a preliminary education equal to that obtained in an accredited high school, and is a graduate and has a diploma from the faculty of a reputable dental or medical college, school or dental or medical department of a reputable university and possess the necessary qualifications prescribed by the board.

Candidates will be furnished with proper blanks and such other information as is necessary on application to the secretary. All applications must be filed with the secretary five days prior to the date of examination. The examination fee is twenty (\$20) dollars, with the additional fee of five (\$5) dollars for a license. Address all communications to J. G. Reid, secretary, 1204 Trude Building, Chicago, Illinois.

KENTUCKY STATE DENTAL ASSOCIATION.

The thirty-ninth annual convention of the Kentucky State Dental Association will convene at Crab Orchard Springs, Kentucky, May 17, 18 and 19, 1909.

We anticipate a most interesting and profitable meeting at this most popular central Kentucky resort. A cordial invitation is extended to all ethical members of the profession.

W. M. RANDALL, Secretary.

MISSOURI STATE DENTAL ASSOCIATION.

The fourty-fourth annual meeting of the Missouri State Dental Association will convene at Kansas City, Missouri, May 26, 27 and 28, 1909. A good, live program is in course of preparation. Respectfully,

J. F. WALLACE,

Corresponding Secretary,

Executive Committee—C. C. Allen, chairman, Kansas City; F. G. Worthly, Kansas City; D. D. Campbell, Kansas City.

STATE BOARD OF REGISTRATION AND EXAMINATION IN DENTISTRY.

The New Jersey State Board of Registration and Examination in Dentistry will hold their semi-annual examination in the assembly chamber of the State House, Trenton, N. J., beginning Tuesday July 6th, and continue through the 7th and 8th. Practical examination held on the 6th, theoretical examination on 7th and 8th.

Practical work consists of soldering a gold or silver plate, one gold filling and one amalgam filling. Gold filling must be an approximal with an approximating tooth in position. Candidates requested to bring their patients. Photograph and preliminary credentials must accompany the application. Sessions begin promptly at 8 a. m., each day. Applications must be in the hands of the secretary ten days prior to the examination.

CHARLES A. MEEKER, D. D. S.,

Secretary of Dental Commission,

29 Fulton St., Newark, N. J.

MISCELLANEOUS

INCIPIENT ALVEOLAR ABSCESS.

We relieved a patient with incipient alveolar abscess by the hourly application to the cheek of Baume Analgesique-Benque (menthol, salicylate of methyl and lanolin).—*B. H. Teague, D. D. S., in American Journal of Dental Science.*

AN INVESTMENT.

As an investment material the author recommends: Plaster 1 part, pulverized silica 1 part, pulverized asbestos 9 to 10 parts, pulverized chalk 1 to 10 parts.—*Cosmos.*

TO LIMIT FLOW OF SOLDER.

If you wish to use solder without being obliged to repolish the plate, cover it with boric acid, which will protect the plate against the action of fire and will prevent the solder from extending.—*La Odontologia.*

MOUTH LOTIONS.

Mouth lotions made up of several carminatives in alcoholic solution do much to stimulate and tone sluggish mucous surfaces. The incorporation of perborate of soda in a tooth powder does much to keep parts clean and antiseptic.—*Dr. C. E. Briggs, Cosmos.*

PROPHYLAXIS.

The average dentist knows little of prophylaxis, cares less and tells his patients nothing. The average dental college teacher knows little of prophylaxis, cares less and tells his students nothing. The average association habitue knows little of prophylaxis, cares less and tells his fellows nothing.—*Dr. J. P. Corley, Cosmos.*

ACIDITY OF THE SALIVA.

The saliva from the parotid gland is always more acid than that secreted by the other glands. The secretion from the submaxillary gland is about three times as acid as that from the parotid gland. This is an important factor in the reduction of the general acidity of the saliva.—*J. N. Roe, Le Laboratoire.*

BRIDGE WORK.

Bridge work must be regarded as a conservative measure; where it is indicated and when the work is properly done it is the very best thing a dentist can do for his patient, and nothing can fill its place; but in the reverse conditions it is the very worst thing, and nothing will ruin the mouth so quickly.—*Dr. F. A. Peeso, Cosmos.*

RUBBER INLAYS.

Dr. O. L. Bandy, La Salle: Vulcanite rubber inlays. Showed a number of vulcanite rubber inlays. A material that will conform more nearly to color of natural teeth. Rubber being one of the best non-conductors, teeth so filled are less liable to become troublesome from thermal changes.—*Review.*

TO ARREST HEMORRHAGE AFTER TOOTH EXTRACTION.

Saturate a loosely made pledge of cotton with sandarac varnish, dip this into tannic acid and press it firmly into the tooth socket; before releasing the pressure inject upon it a little water to harden the varnish. This is actually retained without difficulty, and is usually effective.—*Brief.*

GLYCERINE AN ANTIDOTE FOR CARBOLIC ACID.

Glycerine will counteract the effects of carbolic acid on the mucous membrane of the mouth. It is much pleasanter than vinegar and fully as potent. Take a pellet of absorbent cotton in the foil pliers and dip in glycerine and apply and the white spot disappears like magic.—*Office and Laboratory.*

OLD BRIDGE WORK.

Dr. Prothero, I think, failed to state that the first picture he showed was a piece of bridge work 2,500 years old. That piece of work I have had in my hands. It was owned by Dr. Barrett, of Buffalo. The case was evidently one of pyorrhea. The teeth replaced were natural teeth with their roots. The bands were pure gold, fitted to each tooth and soldered together, then extended around the teeth that had dropped out, which were thus replaced. It was found in an Etruscan tomb in Italy, dating 600 years before the Christian era.—*Dr. L. P. Haskell, Review.*

A PYORRHEA TREATMENT.

The following remedy is prepared for each case, and when ready for application is the consistency of a thick liquid. It is placed in the pockets by using small particles of absorbent cotton on a fine broach, afterwards covering the teeth and gums with a saturate alcoholic solution of the refined cubes of rosin used by violinists; this, evaporated by hot air, leaves a coating to keep moisture from the treated parts. The teeth and gums must be thoroughly dried with hot air before making the application. Formula: A minute particle of silver nitrate crystal, argyrol, carbolic acid and a small portion of orthoform, well spatulated into a paste or thick liquid. This is a powerful antiseptic and reduces the pain almost instantly.—*Dr. Ella M. Hind, Scrap Book.*

LENGTH OF PIVOT STRENGTH.

Length means strength. Strength means permanence of attachment and root protection. We know that the deeper into the ground a fence post is placed the more secure it is. So, also, the deeper into the root we put the pin the more secure becomes the attachment, and the whole root bears the shock of any strain. Length and size give all the attachment necessary. A single crown should have a pin at least as long as the facing. Leverage is thus equally divided between crown and root. A shorter pin makes the leverage in favor of the crown, and the root is liable to be split.—*Dr. G. L. Simpson, Summary.*

ARTIFICIAL ANESTHESIA.

Anesthesia may be artificially produced by inhibiting the sensory nerve fibers at these central end-organs in the brain or at their peripheral end-organs in the tissues, thus producing general and local anesthesia. Local anesthesia may be obtained in two definite ways—we may inhibit the function of the peripheral sensory nerves in a circumscribed area of tissue, referring to this process as "terminal anesthesia," while if we block the conductivity of a sensory nerve-trunk somewhere between the brain and the periphery we speak of it as "conductive anesthesia."—*Dr. Herman Prinz, Era.*

PERSONAL AND GENERAL

Bonney-Fisher.—Dr. M. L. Bonney, of Caribou, Maine, and Miss Evelyn Fisher were married in Caribou December 31.

Neil-Smith.—Dr. Fred A. Neil, of Lowden, Iowa, and Miss Nina E. Smith, of Cedar Rapids, Iowa, were married December 4th.

Barklew-Daggy.—Dr. Frederick Barklew, of San Francisco, Cal., and Miss Camille Daggy, of Berkley, Cal., were married recently.

Dental Clinic at Iowa.—The College of Dentistry, University of Iowa, will hold a clinic at the university in Iowa City, March 9 and 10.

Dental Thief Convicted.—R. D. Howe pleaded guilty of having robbed dental offices in Oshkosh, Wis., and was sentenced to six months in the county jail.

Dies from Tooth Extraction.—George W. Holdridge is dead in Wichita, Kan., from blood poison, said to have been caused by the extraction of eight teeth.

Dental Dispensary for Children.—A free dispensary for treatment of the teeth of children who can not afford to pay for services has been established in Lynn, Mass.

New Society in Oklahoma.—The Garfield County Dental Society has been organized in Enid, Okla., and elected Dr. E. H. Westenhaven as president and Dr. H. L. Entriken, secretary.

Dies as Result of Extraction.—Mrs. Isabelle Larson, age 25, of Salt Lake City, died January 16 from blood poison, said to have been caused by infection from instruments used in extraction of teeth.

Death Due to Artificial Teeth.—H. H. Pratt, a railway express messenger, is dead as a result of swallowing a plate while asleep. An operation was performed to remove the teeth and death resulted.

Dentist Accidentally Blinded.—Dr. Stanley Jackson, a Highlandtown, Md., dentist, was stricken blind shortly after drinking water in which tobacco had been boiled in mistake for coffee. Physicians believe he may recover his sight.

Arrested for Robbery.—Two men were recently arrested by Coffeyville, Kan., police and are thought to be the men who recently robbed the dentists in Wichita and other western towns. When arrested they were trying to dispose of gold scraps.

Davenport District Dental Society.—A meeting of this society was held recently in Davenport and was addressed by Dr. Arthur D. Black. The following officers were elected for the ensuing year: President, Dr. C. R. McCandless, Davenport; vice-president, Dr. A. A. Peterson, Muscatine; secretary, Dr. O. E. Green, Clinton; treasurer, Dr. J. T. Martin, Muscatine.

Southeastern Kansas Dental Association.—This society held a meeting in Girard and elected the following officers, January 17-18: President, Dr. W. T. Embree, Pittsburg; vice-president, T. M. Robison, Coffeyville; secretary-treasurer, A. V. Lucas, Parsons.

Dies in Dental Chair.—Miss Carrie Moe, 22 years old, died in the chair of a dentist in Chicago while under the influence of chloroform administered for the purpose of having some teeth extracted. A physician was in attendance and was later exonerated by a coroner's jury.

Dentist Invents Torpedo.—Dr. L. E. Custer, who has invented a number of appliances for dentists, has invented a new type of torpedo which is being tested by the government with a view of using it in the navy. It is said to be exploded from a distance, similar to wireless telegraphy.

Eastern Kentucky Dental Association was organized at a meeting held in Catlettsburg recently and the following elected officers for the ensuing year: President Dr. R. H. Leete, Prestonsburg; vice-president, Dr. J. A. Tauber, Catlettsburg; secretary and treasurer, Dr. P. H. Williams, Ashland.

Dentist Identifies Body.—The body found in the ruins of the Hotel Copeland at Topeka, Kan., has been identified by Dr. J. E. Morgan of Emporia. The body was charred beyond recognition by ordinary means, and was identified only by the teeth as being the body of Isaac E. Lambert of Emporia.

Marquette Dental Alumni at its recent meeting in Milwaukee elected the following officers for the ensuing year: President, Dr. William Ketteler, Milwaukee; vice-president, C. Ernest Oviatt, Columbus; secretary-treasurer, Dr. W. S. Straub, Milwaukee; executive committee—Drs. M. N. Federspiel and P. F. Mulholland.

The Copper Country Dental Society has organized, with the following officers: President, Dr. W. S. Whistler, Calumet; vice-president, Dr. W. A. Courtney, Hancock; secretary, Dr. R. H. Banks; treasurer, Dr. W. J. Spencer. At the first meeting the society was entertained by Dr. R. D. Jones at the Miscoawabie Club at Calumet.

Central Nebraska Dental Association.—This association met January 27 and re-elected the following officers: President, Dr. Rex Bell, Shelby; vice-president, Dr. E. D. Taylor, David City; secretary, Dr. Ed. Miller, Bradshaw. Dr. Meserve, of Lincoln, president of the state dental association, and Dr. Vance, of Lincoln, gave clinics.

La Crosse District Dental Society.—Dentist representing seven Wisconsin counties met in La Crosse and organized the above named society and elected the following officers: President, C. A. Smith, La Crosse; vice-president, R. W. Baldwin, Viroqua; secretary, W. J. Philips, La Crosse; treasurer, R. E. Kyle, Tomah; librarian, F. S. Waite, West Salem.

St. Joseph Valley Dental Association.—Dentists from four counties in Michigan met at Niles and formed the above named society. Dr. Marcus Ward of the Ann Arbor Dental College gave a clinic on cast work and the following were elected officers: President, F. H. Essig, Dowagiac; vice-president, W. A. Cook, Coldwater; secretary, H. W. Hovey, St. Joseph; treasurer, R. A. Bowie, Three Rivers.

Saint Louis Society of Dental Science.—A very elaborate affair was the annual banquet held at the Hotel Jefferson, January 19. The toastmaster was Dr. Richard Summa, and toasts were responded to by Rev. John P. Frieden, S. J., president of St. Louis University; Prof. C. M. Woodward, Dr. W. E. Brown, president of the society, and Dr. Burton Lee Thorpe. A violin solo enlivened the occasion and was rendered by Dr. E. J. Lenzen.

State Board Affairs.—The recent examinations of the Pennsylvania State Board were held in Harrisburg and of forty applicants but fifteen were given certificates to practice.—A dentist in Sioux Falls, S. D., was recently arrested for practicing without a license, but an appeal to the supreme court resulted in a reversal of the lower court and the dentist may practice without a license, according to *De Smet, S. D., News.*—The State Board of California is having a fight with a strong lobby in the legislature over the Hurd bill, which, if it becomes a law, will allow anyone to practice in the state who can furnish certificate signed by two licensed dentists of the state. The old law is being defended by Dr. A. B. Mayhew, president of the state board.

Removals.—Drs. Chas. A. Kuhn, from Milroy, Ind., to Greensburg; C. H. Wells, from Orangeburg, S. C., to Charlotte, N. C.; Harry Darling, from Lake Andes, S. D., to Aberdeen; Lovejoy from New York City to Coeur D'Alene, Colo.; W. F. Cook from Gibbon, Neb., to North Platte; William Campbell from Batesville, Ind., to Santa Rosalie, Mexico; I. R. Irwin from Fairfield, Iowa, to Burlington; G. W. Jones from Herkimer, N. Y., to Lawton, Okla.; Ernest Gage Skiff from Chicago to Monticello, Ind.; C. E. Simmonds from Muncie, Ind., to Logansport; L. M. White from Chicago to Atlanta, Ga.; Patrick from Topeko, Kan., to Horton.

Robberies.—Drs. E. J. Husband and B. R. Hull, McPherson, Kan.; loss, \$75. Fred L. Hamil, V. H. Rimmerman and J. L. Means, at Lincoln, Ill.; losses, respectively, \$35, \$25 and \$40. R. G. Hunn, Springfield, Ill.; loss, \$300. J. O. Baldwin, Springfield, Ill.; loss, \$60. F. A. Kreyer, Tulsa, Okla.; loss, \$150. E. M. Glenn, Harper, Kan.; loss, \$40. Bubb Dental Company, Wichita, Kan.; loss not given. At Owensboro, Ky.; Keene & Wilson, loss, \$200; H. E. Becker, loss, \$175; G. W. Rial, \$25. At Peoria, J. H. Robinson, loss, \$30; Peters & Martin, loss, \$50; C. G. Cleveland, loss, \$300; J. T. Houston, loss \$20; J. P. Conigisky, loss not given. At Hamilton, Ohio., H. I. Scott, loss, \$75; LeRoy Henes, loss, \$25. B. S. Tyler, Freeport, Ill.; loss, \$25. At Racine, Wis., Gilbert Tate, loss, \$100; J. G. Gruber, loss, \$40. E. L. Griffith, Freeport, Ill.; loss, \$5. Climax Dental Co., Scranton, Pa.; loss, \$1,000.

ENGLEWOOD DENTAL SOCIETY.

This society met on December 10, 1908, with a large and enthusiastic attendance and the following officers were elected: President, P. A. Campbell; Vice-President, H. I. Van Tuyl; Secretary, R. R. Pashley; Treasurer, Y. Y. Knapp.

Memorial Meeting.

The society met again January 19, 1909, and in place of the previously arranged program the meeting was turned into a memorial meeting in honor of the late President, Dr. Peter A. Campbell, who died of typhoid fever on January 15, 1909. A committee was appointed and the following resolutions were offered and adopted:

IN MEMORIAM.**Dr. Peter A. Campbell.**

Resolutions passed by the Englewood Dental Society, January 19, 1909:

Submitting to the Will and Providence of the Divine Father, whose laws direct and govern our destinies, our society has again been summoned to suffer from the sting of death. This time we are called upon to mourn the loss of our President, and while we deeply deplore this great sacrifice, with aching hearts, and in the spirit of Christians, we most humbly yield to the inevitable.

Dr. Peter A. Campbell spent his early life in Canada and began the practice of dentistry in Chicago in 1902, having been graduated the same spring from the N. W. U. D. S. He had a large clientele, whose confidence in his ability was amply justified by the results of his efforts.

He became a member of the Englewood Dental Society in 1903. His love for the profession, and his activity in dental society work made him esteemed and honored by all. In 1907 he served this society as Secretary. So faithful was he to his duties, and so hard and loyal did he work for the rejuvenating of our society that we again honored him, but a month before his death, by making him President. He met his untimely death as a result of complications, following typhoid fever, on January 15, 1909. Therefore, be it

Resolved, That in the death of our President, our society has suffered a severe shock. It has lost one of its most estimable members—an ideal professional brother—an ideal friend—a man who so fearlessly and so willingly performed every duty to society and to his profession that he won his way into the hearts of us all.

Resolved, That the Englewood Dental Society extend the bereaved widow an expression of our sincere sympathy, and assure her of our great admiration for his ideal personal and professional qualities.

Resolved, That these resolutions be spread upon the records of this society, a copy sent to the widow, and also copies sent to the leading journals for publication.

J. P. SMITH,
G. G. KNAPP,
BENJ. S. PARTRIDGE.

NECROLOGICAL.

Dr. W. W. Corley, a dentist at Marion, Ala., is dead of a self-inflicted bullet wound. He was prominent in secret societies and church work and was a graduate of the Department of Dentistry, Vanderbilt University, class of 1891.

Dr. R. R. Ross. The Odontological Society of Omaha held a memorial meeting January 14th in commemoration of Dr. F. R. Ross, who was dean of the Omaha Dental College, and who died suddenly January 11th.

Dr. D. S. Prichett, a dentist in Camden, Ala., died January 10th, and was buried with Pythian ceremonies. He married and had one child.

Dr. John Harris, a dentist in Norridgewock, Maine, died January 25th. He was an old resident and popular.

Dr. Guy C. Ester, a dentist of Palatka, Fla., died of appendicitis in the hospital in St. Augustine. He was a graduate of the Southern Dental College at Atlanta, Ga., class of 1898.

Dr. Clifford B. Hayford, who had practiced dentistry in Toledo, Ohio, for the past twelve years, died January 28. He was born in Tiffin, was 45 years old, and was a graduate of the Indiana Dental College, class of 1891.

Dr. Marie Huebner Elm, a successful woman dentist in Philadelphia, died January 22d. Dr. Elm was a graduate of Pennsylvania College of Dental Surgery with the highest honors in the class of 1902, and was presented with certificates of merit at the last state convention.

William R. Longnecker, a well known dentist in Brooklyn, died January 27 in his thirty-sixth year. He was a graduate of New York College of Dentistry, class of 1895.

Dr. A. J. Elmer, formerly located in Rochelle, Ill., and who had been in practice in Bloomington for the past seven years, died in the latter place January 25th. He was 36 years old, a graduate of Chicago College of Dental Surgery, class of 1895, and was secretary of the McLean County Dental Society.

Dr. Addison S. Melvin, for several years a resident of Chicago, died at Miami, Fla., of heart failure. He was formerly in practice at Oak Hill, Ill.

Dr. Fred W. Ludlum, a Port Jervis, N. Y., dentist, was found dead in a hotel in Goshen, N. Y. He was 39 years old and was president of the Orange County Christian Endeavor Union.

Dr. John L. De Voss, a dentist in Winchester, Ind., died recently at that place. Dr. De Voss was a graduate of Central College of Dentistry, Indianapolis, class of 1901.

Dr. Thomas J. Collins, a dentist in Detroit, Mich., died January 22, aged 50 years. He was a graduate of the Detroit College of Medicine, class of 1895, and for sixteen years had been a member of the faculty.

DENTAL PATENTS

Fig. 1.

907,003. Dental Instrument. Richard T. Burnley, Atlanta, Ga. Filed April 14, 1908. Serial No. 426,991. 1. In a dental instrument, a tubular handle, a shaft extending through the handle and provided at one end with a finger piece, a pinion secured to the opposite end of the

FIG. 1

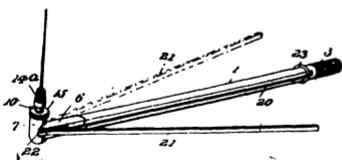


FIG. 4

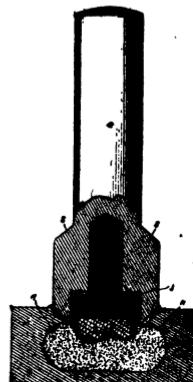


FIG. 2



FIG. 5

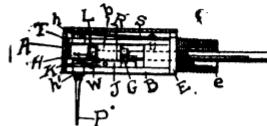


FIG. 3



FIG. 6



shaft, the pinion and finger piece bearing respectively against the inner and outer ends of the tubular handle, an angular tubular extension fitted on the tubular handle and formed at an end with a concave seat internally threaded at its opposite end, a chuck formed with an opening having a convex head at one end to engage the concave seat in the extension.

Fig. 2.

900,541. Dental Appliance. Erwin E. Holmes, Indianapolis, Ind. Filed Nov. 2, 1907. Serial No. 400,387. 1. A dental appliance for taking wax impressions or bites consisting of a primary and a secondary plate, means on said plate adapted to force the secondary plate to travel longitudinally when moved toward the primary plate and to limit said longitudinal travel, and a lug on said primary plate to limit the longitudinal travel of said secondary plate in the direction to open the appliance.

Fig. 3.

906,869. Dental Tool-Holder. Clarence B. Gehringer, Philadelphia, Pa. Filed March 31, 1908. Serial No. 424,334. 1. In a dental tool holder, the combination of the tool having a shoulder and a threaded shank, with a handle having, at the forward end, a member with a seat for the shoulder on the tool and an internally threaded bore for engaging the threaded shank on the tool, and a rod in said handle having, at its forward end, a nut for engaging the threaded shank of the tool, said nut being seated upon the rear end of the threaded member of the handle, so as to constitute a lock nut for said threaded shank of the tool.

Fig. 4.

906,911. Tooth Crown, on Plate and Swaging Device Therefor. Piercy B. McCullough, Philadelphia, Pa. Filed July 27, 1904. Serial No. 218,354. 1. The mode herein described of forming a tooth crown or plate, said mode consisting in first forming a primary cement model of the crown or surface and then by means of said primary cement model, acting directly as a die, pressing a plate of previously unformed malleable metal into a bed of plastic material, substantially as specified.

Fig. 5.

907,815. Dental Engine Plugger or Mallet. Jesse P. Kelley, Geneva, Ohio. Filed October 28, 1907. Serial No. 399,440. 1. In a dental engine plugger the combination with a suitable casing, of a frame seated therein; a rotary shaft mounted in said frame; a cam attached to said shaft; a spring-actuated plugger-head mounted in said frame in a plane at right angles to the axis of the shaft, and having a lip adapted to be engaged by said cam; and a movable device for varying the force of the blow dealt by the plugger-head.

Fig. 6.

907,326. Artificial Tooth. Leo E. Evslin, Peoria, Ill., assignor to the Universal Interchangeable Tooth Company, Peoria, Ill., a Corporation of Illinois. Filed April 23, 1908. Serial No. 428,814. 1. In combination, a tooth having a shoulder at its rubber line, a shoulder at the cervical border and having its posterior face between the two shoulders inclined towards the cervical shoulder, and a metallic box within the tooth leading from the cervical shoulder towards the masticating surfaces, said box having its side walls inclined to form a dovetail groove therein.

McDonough-Fulton County Dental Society met in Monmouth, Ill., January 14. A paper was read by Dr. D. W. Ditmar on "The Technique of Cast Crown." The society was the guest of the Warren County Society. Officers were elected as follows: President, Dr. F. A. Lane, Macomb; vice-president, Dr. C. S. Brown, Table Grove; secretary, Dr. F. V. Brooking, Macomb; treasurer, Dr. J. D. McMillan, Macomb; librarian, Dr. C. L. Cleveland, Bushnell. The next meeting will be held in Macomb, July 8.

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Springfield, Ill., Feb. 10, 1909.

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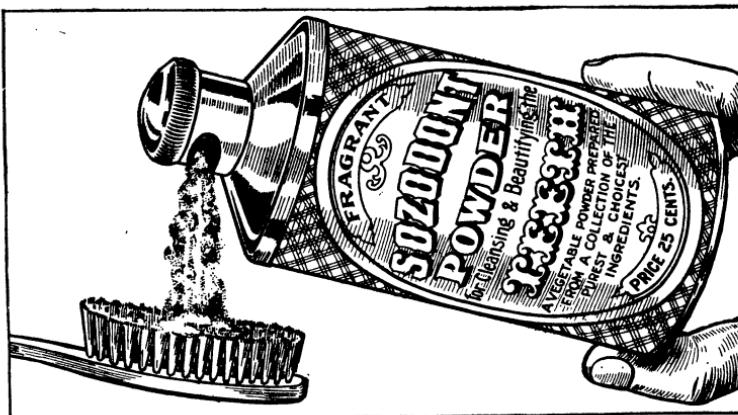
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